



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## THE TOUCAN.

Few persons not naturalists would suppose that the formidable-looking creature depicted in our engraving, and the beautiful little humming-birds whose portraiture we so lately introduced into these pages—ante p. 249—belonged to the same tribe. Yet both birds are varieties of the genus *pica*, or birds of the pie kind, the second order in the *Systema Naturæ* of

parrots; the *ramphastos*, or toucan proper; the *buceros*, another variety of large-billed and plentifully-feathered birds; the jackdaws, crows, and their affinities; the *coracias*, *gracula*, *paradisæa*, and *cuculus*—the thrush of the tropics, the jackdaw and similar birds of China, the various sorts of birds of paradise, and the cuckoo. Besides, there are contained in the



THE CRESTED TOUCAN, AND THE SPOTTED FISHING MARTIN.

Linnaeus. The *pice*, scientifically speaking, are "birds which have the bill a little compressed and convex;" but the tribe will be better known when it is stated that it comprises that immense number of the feathered tribe which stands between the *occipetres*, or vulture kind, and the *anseræ*, or poultry kind of birds. Thus, in this class we have the whole family of

same classification the several kinds of woodpecker—*picus*, the kingfisher—*alcedo*—the bee-eaters and the coughts, the humming-birds—*trochilus*—and the pigeon.

Now, although these are rather dry details, and although it is not our intention to attempt a scientific notice of the various animals we from time to time introduce into our pages,—a

book devoted entirely to natural history being the more proper vehicle for such information,—we have thought it necessary to say thus much, in order that our readers may be placed in the right path when they wish to study the habits and characteristics of animals—one of the most interesting kinds of reading imaginable; “as interesting,” as Johnson said of “Goldsmith’s Animated Nature,” “as a Persian tale.”

And this mention of Goldsmith brings us naturally back to our immediate subject. Speaking of the birds of the pie kind, he says that they are the least useful to man of all the feathered creation, contributing neither to his pleasures or his necessities. In making this sweeping assertion, Goldsmith most unaccountably overlooked the crows, the “farmer’s best friends,” and the pigeons, fit eating for a king; but then, in Goldsmith’s time, the crow was generally believed to be a grain-eater and a thief, and the pigeon was not a particularly favourite dish at the dinner-parties in Covent-garden. With these exceptions—and it really appears something like literary treason to say anything against poor Goldy’s writings—his enumeration of the characteristics peculiar to the pie kind are extremely happy.

He goes on to say, that though, as a class, the “pies” are rather noxious than beneficial to mankind, and that they are false, noisy, and troublesome neighbours—he being within ear-shot of a rookery near Canonbury-tower, probably, while he was writing—they are yet, with respect to each other—having the rookery full in sight, perhaps.—the most social, ingenious, active, moral, and industrious of the whole family of birds. As a bachelor he could fully appreciate their domestic qualities, and therefore he tells us, that while the vultures and other birds of prey drive out their young before they are fit to struggle with their ills of bird-life—that while the ducks, the geese, and other birds of the poultry kind are faithless spouses and indifferent parents—and that while the sparrow tribe are noisy and careless of their home duties—the picae are uniformly good husbands, good fathers, and first-rate nurses and nest makers! often living together in companies, and managing matters in a way that should be quite a pattern to mankind.

And then he grows eloquent upon the instinct displayed by this family of birds, instancing the teachable capabilities of ravens and jackdaws, hinting at the story of the “Maid and the Magpie,” as something really surprising in the general family picture; and winding up his introduction by stating, that all the tribe, from the crow to the pigeon, agree in certain general particulars, namely, the possession of “hoarse voices, slight active bodies, and a facility of flight that baffles even the boldest of the rapacious kinds in the pursuit!”

But as Goldsmith says little of the toucan,—never having seen one, probably, out of a bird-shop window, and that one, most likely, barbarously “set up,”—we must go to better authority for our notice of this remarkable bird.

The toucan, then, belongs to the order *Picae* and the genus *Ramphastos*, and may be described as having a monstrous hollow convex beak, serrated outwardly, with the nostrils behind the jaws, the tongue shaped something like a feather, and the toes, three before and one behind. It is known by various names, being sometimes called the Brazilian pie, and at other times the Bill-bird. In some kinds, the nostril is altogether wanting, the large hollow bill, which is seldom closely shut, serving the purpose instead. It is a native of South America, and the different kinds are arrayed in brilliant plumage, with which the ladies of Brazil and Peru decorate their heads and persons. The size of its body is about that of a jackdaw or pigeon, with a large head fitted to receive its enormous pair of mandibles. Like the aracarís of Brazil, which it very much resembles, the toucan is capable of being tamed, and several stories are told of its extreme vivacity and fondness for human society. At different times living specimens have been taken to England, but the coldness of the climate has generally proved fatal to them. In 1825, Mr. Broderip presented one to the Zoological Society of London, which lived for a considerable time. Its food was indifferently small birds and seeds; and it is not certainly known even to

this day whether the toucan is carnivorous or granivorous. It is a nest builder, and would appear, from the formation of its beak and its strong talons to be tolerably well provided against the attacks of its numerous enemies—the serpents, monkeys, and other voracious animals of tropical forests.

The most surprising part of this curious bird is, of course, its enormous beak, which, in some species, is nearly as long as its body. But the specific gravity of this formidable-looking appendage is so small, compared to its size, as neither to impede the upward flight of the bird, or prevent its seeking its food with great activity and vigilance; while the eyes are so placed as to be in no way inconvenienced except in one direction. This remarkable beak, says La Vaillant, forms almost as curious and wonderful an example of peculiar organisation as the trunk of an elephant; and—quoting Mrs. Barbauld’s well-known and exquisite lines—may we not exclaim, on gazing on this curious and wonderful bird,—

“I hear the voice of God among the trees,  
In every leaf that trembles to the breeze,  
In every creature own His forming power,  
In each event His providence adore.”

The specimen of the Toucan shown in the engraving is called the Crested Toucan; and the smaller bird is called the Spotted Fishing Martin, also belonging to the *picae* family.

## PEAT AND ITS PRODUCTS.

AMONGST the many remedies propounded for the relief of our Irish brethren, few seem to promise more successful results than the manufacture of its bog-earth; for from it may be obtained a great variety of useful substances—tallow, charcoal, sulphate of ammonia, naphtha, oils, &c. &c. In a lecture delivered by Professor Brande, at the Royal Institution, the nature and products of peat were explained, and the uses to which such products might be applied familiarly illustrated. The professor described a peat-bog as a superficial stratum of vegetable matter, which at different depths had undergone, or is still undergoing, various stages of changes and decomposition. The superficial appearance of a peat-bog is that of a mass of half-decayed heath, mosses, rushes, and grasses, the roots of which have successively died away, though the plants still continue to vegetate. The mass is liqueous, and imbued, among other products of slow decay, with humic (from *humus*, the ground), or humous acid; and the abundance of moisture pervading the bog at once affects the character of the peat and the surrounding district.

The upper layers of the bog are usually of a loose fibrous texture, and of a pale brown colour; but beneath the surface the density of the mass is found to increase considerably; till at last the distinct character of the vegetable ceases to be discernible, and the bog appears almost homogeneous, and of a dark-brown or blackish colour. In the midst of this mass are occasionally found the trunks of trees and some curious geological phenomena, laying in various positions and at different depths. A peat-bog—and, indeed, the entire district—may, therefore, be regarded as the consolidated produce of enormous primeval forests and fields of vegetation, covering in the aggregate millions of acres. It is a fact, no less curious than remarkable, that one-tenth of the whole surface of Ireland is covered with peat-bog, which is not only valuable in itself, but which, if removed, would exhibit a soil beneath eminently fitted for the operations of the agriculturist.

In the lecture alluded to, Professor Brande exhibited various samples of peat, taken from the upper, lower, and middle portions of the bog. He particularly noticed the tallow peat of the bank of Lough Neagh, which, from the brilliant flame attending its combustion, is sometimes rendered available as a source of light as well as heat—for it must be understood, that, until lately, bog-peat was used simply as fuel.

Peat may be rendered highly useful for a great variety of purposes; which, however, for the present may be resolved into two,—charcoal, and the various productions derivable from what is called its destructive distillation. When peat is